DISCUSSION DRAFT – For ITF Review

October 15, 2003

TO: ITF

FR: SRFB Staff

DEFINING RESTORATION IN THE SRFB'S 5TH ROUND SALMON GRANT CYCLE

The purpose of this document is to provide a recommendation for defining "restoration" in the 5th Round SRFB grant cycle.

The Washington State Legislature provided a $46.3 million appropriation for this biennium subject to the following conditions and limitations, in Sec. 369, SSB 5401:

(1) "$23,187,500 of the appropriation is provided for grants for restoration projects.

(2) The remainder of the appropriation is provided solely for grants for salmon recovery efforts. These grants shall include a grant to any regional recovery board established in the Revised Code of Washington and may include grants for additional restoration projects."

Staff Interpretation of Item #1:
This provision provides for dedicating a specific amount of funds to projects that restore salmon habitat. The term "restoration" prompts the need to confirm a common and acceptable scope of use and definition of this term.

Staff Interpretation of Item #2:
This provision allows for the remainder of the appropriation to be used for "salmon recovery" which staff interprets to include habitat-based projects that protect or restore salmonid habitat and regional recovery planning efforts. This would include all of the restoration projects described in (1), above, as well as acquisition and non-capital projects.

STAFF RECOMMENDATION FOR DEFINING "RESTORATION" IN ITEM #1:

- Continue to use the SRFB's existing six categories of restoration projects, described below.
- Include non-capital projects that are site-specific designs or feasibility studies that would lead directly to these six categories of restoration projects, and

- Include acquisitions/easements only when it is necessary to accomplish restoration on the land being acquired. This may occur when the land will no longer have value or no longer be suitable for residential or economic purposes after the restoration is complete. Examples include a levee setback, dike

removal, reconnection of historic side channel, or restoration of a floodplain. The restoration needs to be the primary purpose of the grant-supported project, but restoration costs doe not need to be the majority of the grant.

- Include associated monitoring costs which are part of the project or which are part of an effectiveness monitoring program that has selected the project for inclusion in its sample.

BACKGROUND INFORMATION:
In past funding cycles the SRFB has defined three categories of project types: restoration, acquisition, and non-capital (assessments and studies). Some projects are "combination", which are tracked by their principal purpose.

The charts following Attachment A show the SRFB's funding patterns to date.

RESTORATION

Through the 4th Round, projects classed as restoration projects are grouped into six categories set out in the SRFB Grant Manual. There is no separate definition of "restoration" in SRFB policies (or in the SRFB's RCW's.) Manual 18b's examples of eligible "restoration" projects include:

- In-Stream Passage
- In-Stream Diversions
- In-Stream Habitat
- Riparian Habitat
- Upland Habitat
- Estuarine/Marine Nearshore

Descriptions of these six categories are as follows. Under each of the categories, specific definitions are provided for most terms (see pages 9 to 18, Manual 18b, included as Attachment A.)

- "In-Stream Diversions – includes those items that affect or provide for the withdrawal and return of surface water to include the screening of fish from the actual water diversion (dam, headgate), the water conveyance system (both gravity and pressurized pump), and the by-pass of fish back to the stream."

- "In-Stream Passage – includes those items that affect or provide fish migration up and downstream to include road crossings (bridges and culverts), barriers (dams, log jams), fishways (ladders, chutes, pools), and log and rock weirs." Also, staff has interpreted this to include the placement of fish carcasses to provide nutrient enrichment.

- "In-Stream Habitat – includes those freshwater items that affect or enhance fish habitat below the ordinary high water mark of the water body. Items include work

conducted on or next to the channel, bed, bank, and floodplain by adding or removing rocks, gravel or woody debris. Other items necessary to complete the project may include livestock fencing, water conveyance, and plant removal and control.' Also, staff has interpreted this to include the placement of fish carcasses to provide nutrient enrichment.

- "Riparian Habitat – includes those freshwater, marine nearshore, and estuarine items that affect or will improve the riparian habitat outside of the ordinary high water mark or in wetlands. Items may include plant establishment / removal / management, livestock fencing, stream crossing, and water supply."

- "Upland Habitat – includes those items or land use activities that affect water quality and quantity important to fish, but occur above the riparian or estuarine area. Items include the timing and delivery of water to the stream; sediment and water temperature control; plant removal, control, and management; and livestock fencing and water supply."

- "Estuarine/Marine Nearshore - includes those items that affect or enhance fish habitat above or below the ordinary high water mark of the water body. Items include work conducted adjacent to the intertidal area and in subtidal areas. Items may include beach restoration, bulkhead removal, dike breaching, plant establishment/removal/management, and tide channel reconstruction."

Literature & Other References

Although SRFB does not have a single definition of "restoration", its composite definition and examples are consistent with definitions and approaches suggested in scientific literature and federal practice.

For example, the SE Region of US Fish & Wildlife Service defines restoration as:

> "…the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning full functions to lost or degraded native habitats. Habitat restoration includes:
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> - practices conducted with the goal of returning a site, to the extent practicable, to the ecological condition that likely existed prior to loss or degradation;
> - practices conducted when restoration of a site to its original ecological condition is not practicable, but which will partially repair original habitat functions, and consist of native vegetation; and,
> - removal of the disturbing/degrading element to enable the native habitat to re-establish or become fully functional."

In the Northwest, similar definitions of restoration are used in a technical report titled *A Review of Stream Restoration Techniques and a Hierarchical Strategy for Prioritizing Restoration in Pacific Northwest Stream* by Roni, Beechie, Bilby, Leonetti, Pollock, and Pess, of the Northwest Fisheries Science Center, and published in the North American Journal of Fisheries Management 22:1-20, 2002.

The hierarchical strategy presented in the Roni paper is based on three key elements:

1) Principles of watershed processes,
2) Protecting existing high-quality habitats, and
3) Current knowledge of effectiveness of specific techniques. The authors state: “Initially, efforts should focus on protecting areas with intact processes and high-quality habitat. Following a watershed assessment, the authors recommend that restoration efforts focus on reconnecting high-quality fish habitats such as instream or off-channel habitat made inaccessible by culverts or other man-made obstructions. Once the connectivity of habitats within a basin has been restored, efforts should focus on restoring hydrology, geologic (sediment delivery and routing), and riparian processes through road decommissioning and maintenance, exclusion of livestock, and restoration of riparian areas."

The authors go on to describe restoration by using the following five general categories:

Habitat reconnection – isolated habitats
- Off channel freshwater areas such as sloughs, wetlands, and oxbow lakes
- Stream reaches isolated by culverts and a other artificial obstructions
- Estuarine habitats (isolated sloughs, distributary channels, and blind channels.

Road improvements
- Reduce the delivery of fine sediment
- Reduce landslide frequency

Riparian restoration
- Source of long-term LWD
- Grazing and fencing strategies

Instream habitat restoration
- Placement of LWD and boulders
- Spawning gravel

Carcass placement –
- Provide nutrients to the stream

After review, staff believes that most of the specific items Roni et. al. noted are covered within the existing SRFB categories, although the Roni paper’s organization of elements may be less complex. For clarification, *Placement of fish carcasses to provide nutrient enrichment* may need to be added to the SRFB’s examples.

It should also be noted that the current SRFB “restoration” categories are captured in the PRISM computer system, and are the basis for reporting funding by categories to the Legislature and Congress. The definitions are similar to the categories being reported to NOAA/NMFS in the on-going performance measure project. The PRISM system can be adapted if needed, although the comparison of data between years would not be consistent.

ACQUISITION:

Through the 4th Round, projects classed as "Acquisition" projects were defined in the SRFB Grant Manual 18b as:

> "The purchase of land, access, or other property rights in fee title or less than fee, for example conservation easements. Rights or claims may be acquired, provided the value can be established or appraised. All acquisitions are from willing sellers and all less than fee acquisitions are perpetual."

A "Combination" project has included both "Acquisition and Restoration" or "Acquisition and Non-Capital" (assessments and studies). This project category type allowed for some creative, complex projects that otherwise would not be possible. For example, acquiring land is sometimes necessary to reconnect high quality habitat. Likewise, some potential acquisitions may need an initial assessment of the landowners' willingness to sell in order to identify and locate the most beneficial tracts of habitat for restoration or protection.

NON-CAPITAL (ASSESSMENTS AND STUDIES):

Through the 4th Round, projects classed as "Non-capital" projects defined in the SRFB Grant Manual 18b include:

> "..feasibility studies; channel migration studies; reach-level, near-shore, and estuarine assessments; and inventories such as barrier, unscreened water diversions, and landslide hazard areas. A feasibility study could include assessing the willingness of landowners to allow access to their land for a habitat restoration project or to consider selling a conservation easement."

The Manual also notes:

- The results of proposed assessments must DIRECTLY AND CLEARLY lead to identification, siting, or design of habitat protection or restoration projects or fill a data gap identified as a priority in a lead entity strategy.
- Assessments intended for research purposes, monitoring, or to further general knowledge and understanding of watershed conditions and function, although important, are not eligible for SRFB funding.
- Assessments must be closely coordinated with other assessments and data collection efforts in the watershed and with federal, tribal, state, regional, and local organizations to prevent duplication and ensure the use of appropriate methods and protocols.
- To improve coordination, lead entities and applicants are encouraged to partner with each other.
- Assessments and studies must be completed within two years unless the project sponsor can justify additional time.

Monitoring

Through the 4th Round, projects were not separately classed as "Monitoring" projects. A few program-scale monitoring efforts are underway, such as Engineered Log Jams [ELJs] or the stand-alone Smolt Monitoring program.

To the extent that monitoring was or remains a required component of individual projects, its costs were and should be included in the same category as the underlying project. Monitoring is part of the project, and counts towards the 'restoration' amount.

The 5th Round may adopt a different approach to project effectiveness monitoring. The SRFB may select a sample of projects for monitoring rather than require all projects to monitor individually. In this case, staff would recommend that the costs of monitoring be attributed to the underlying sampled projects. It may be that the bookkeeping for this recommendation will prove too complex, but some measure will be needed to ensure that effectiveness monitoring costs and their associated grants are properly attributed as being "restoration" [or not.]

To the extent that the Board supports separate, stand-alone monitoring efforts not attributable to a specific underlying project, those costs should probably be classed in categories other than restoration. (E.g., new or continued projects such as ELJs or watershed-wide monitoring.)

STAFF RECOMMENDATION FOR DEFINING "RESTORATION" IN ITEM #1:
Based on the previous review, staff recommends the SRFB:

- Continue to use the SRFB's existing six categories of restoration projects described above
- Include non-capital projects that are site-specific designs or feasibility studies that would lead directly to these six categories of restoration projects
- Include acquisitions/easements only when it is necessary to accomplish restoration on the land being acquired. This may occur when the land will no longer have value or no longer be suitable for residential or economic purposes after the restoration is complete. Examples include a levee setback, dike removal, reconnection of historic side channel, or restoration of a floodplain. The restoration needs to be the primary purpose of the grant-supported project, but restoration costs doe not need to be the majority of the grant.
- Include monitoring costs where attributable to the underlying project being monitored.

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